

## Global Observations of Forest Cover and Land Dynamics (GOFC-GOLD): updates and progress for SDGs

*A summary of the meeting Space for Development, 2. Nov. 2016 in  
The Hague, Netherlands*



[http://www.gofcgold.wur.nl/sites/gofcgold-gfoi\\_sciencemeeting2016.php](http://www.gofcgold.wur.nl/sites/gofcgold-gfoi_sciencemeeting2016.php)



Brice Mora, Martin Herold, Greg Scott, ChenJun ...

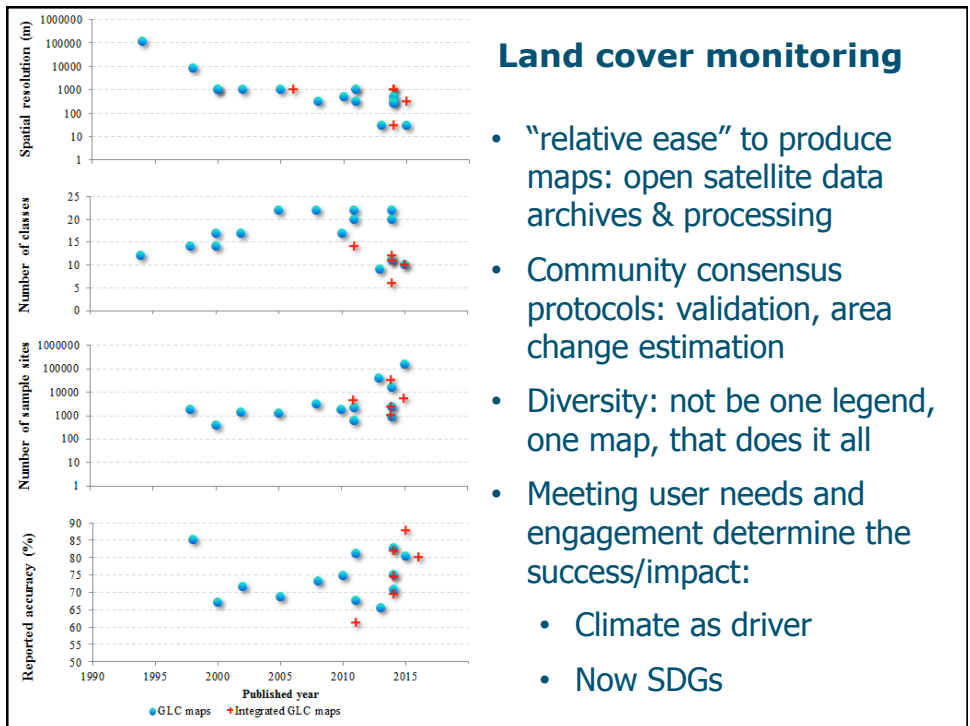


## GOFC-GOLD: active support of UN Conventions, Global Assessment, Users & Monitoring Programs

- Community consensus guidance (i.e. harmonization, validation, REDD+)
- Coordinate land cover community input to the WMO Global Climate Observing System (UNFCCC, GCOS)
- Lead the R&D of Global Forest Observations Initiative and GEO land cover task
- Develop Worldbank Forest Carbon Partnership training materials / eLearning tools
- Support to space agencies and global land monitoring programs (user needs, standards)
- Promote transparency and free & open source data and tools



<http://www.gofcgold.wur.nl/>



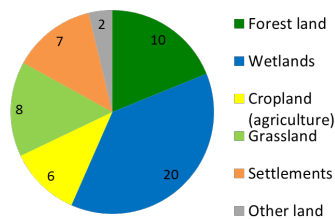
### Data for monitoring Sustainable Dev. Goals

SDGs		Land Use data	Land Cover data	Land Cover Change data	Biomass data (AGB)	Fire data (Active fires, burnt areas)
	Zero hunger					
	Clean water					
	Industry					
	Cities					
	Consumption & production					
	Climate action					
	Life below water					
	Life on land					
<b>Importance of data for indicators in place to monitor targets/goals:</b>						
		Essential	some essential / some complementary	Complementary	Not relevant	

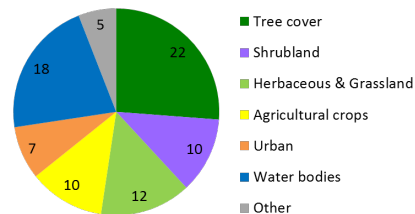
## Data requirements for land sub-categories

LU / LC monitoring provides important data to monitor 8 goals, 29 targets, and 33 indicators

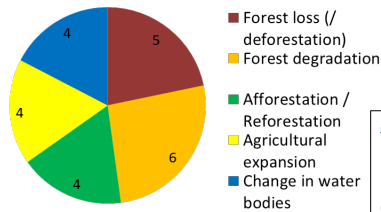
### Land Use data



### Land Cover data



### Land Cover Change data



# The numbers in the pie charts refer to the number of indicators for which the spatial data requirements apply.



## Goal 15: Life on land

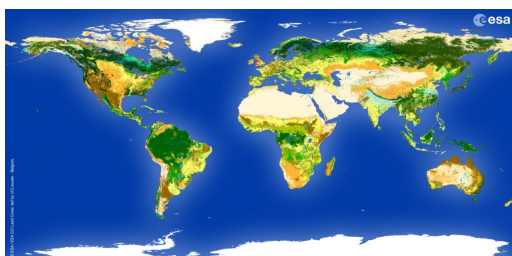


15.1 Conservation, restoration and sustainable use of terrestrial ... ecosystems and their services ... :

Indicator 15.1.1 Forest area as a percentage of total land area (Tier I)

15.2 Sustainable management of halt deforestation, restoration, reforestation etc.

Indicator 15.2.1 Progress towards sustainable forest management (Tier III)



Key issues:

- Definition of forests
- Gross versus net change
- Area bias in maps and confidence intervals
- Thematic disaggregation

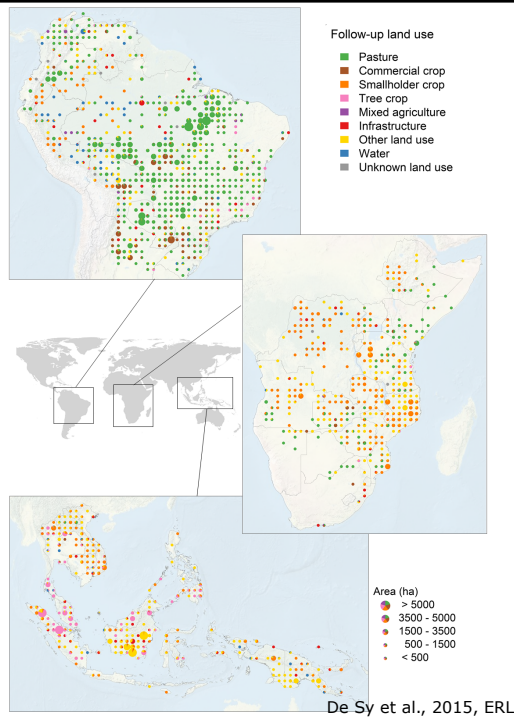


## Goal 13: Climate action



FAO remote sensing survey data 1990-2005

Land use following deforestation 1990-2005	Area (1000 ha)	%
Smallholder crop	12123	18.8
Commercial crop	4326	6.7
Tree crop	5584	8.7
Pasture	27305	42.3
Mixed agriculture	404	0.6
<b>Total Agricult.</b>	<b>49781</b>	<b>77.1</b>
Infrastructure	2210	3.4
Other land use	11230	17.4
Water	1073	1.7
Unknown	200	0.3
<b>Total other</b>	<b>14748</b>	<b>22.9</b>
<b>Total</b>	<b>64529</b>	<b>100.0</b>



De Sy et al., 2015, ERL

## Data for monitoring Sustainable Dev. Goals

SDGs	Land Use data	Land Cover data	Land Cover Change data	Biomass data (AGB)	Fire data (Active fires, burnt areas)
Zero hunger					
Clean water					
Industry					
Cities					
Consumption & production					
Climate action	X	X	X	X	X
Life below water					
Life on land	X	X	X	X	X

### Gaps for indicators:

**X** Data essential to monitor targets and goals, however, indicator requires revision to take advantage of land monitoring capabilities

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## Enhancing transparency in the land-use sector

### Exploring the role of independent monitoring approaches

Veronique De Sy,<sup>1</sup> Martin Herold,<sup>1</sup> Christopher Martius,<sup>2</sup> Hannes Böttcher,<sup>3</sup> Steffen Fritz,<sup>4</sup> David Gaveau,<sup>2</sup> Stephen Leonard,<sup>2</sup> Erika Romijn,<sup>1</sup> Rosa Maria Roman-Cuesta<sup>1,2</sup>

#### Key messages

There is a need for independent monitoring approaches (i.e. unbiased data, tools and methods) that stakeholders involved in land-use sector mitigation activities can rely on for their own goals, but which would also be perceived as transparent and legitimate by others and support accountability of all stakeholders in the framework of the Paris Agreement.

<http://www.cifor.org/library/6256/enhancing-transparency-in-the-land-use-sector-exploring-the-role-of-independent-monitoring-approaches/>

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### *Closing remarks*

- Land use /Land cover (change) monitoring, arguably, single most important variable from Earth Observation to SDG indicators:
  - Provides important data to monitor 8 goals, 29 targets, and 33 indicators (preliminary!)
  - Ensured free and open satellite time series until 2030 at least (NASA/USGS, ESA/EC-Copernicus)
- Active and sustained dialog between SDGs indicator developers and technical community:
  - Opportunity and limitations are understood (both ways)
  - Land monitoring community coordination (GEO/GOFC)
  - Many prototypes, but requirements formulated and advocated with global and national monitoring programs
  - Synergy among indicators using land cover/use data: definitions, maps vs. areas, disaggregation, transparency

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### ***Closing remarks***

- Important areas of further work to support countries in reporting on SDG indicators:
  - Define requirements and reporting guidelines (incl. use of geospatial info, options and advantages of disaggregation, etc.)
  - Good practices and continuous improvement
- Different types of uses/users:
  - Country efforts/capacities for SDG indicator reporting
  - Support process of technical assessment (transparency, consistency etc.) and global stocktake
  - Information to target SDG implementation and track progress (locally)
- Country circumstances and priorities vary:
  - Capacities/data available and priorities for different SDGs
  - How to make choices for stepwise progress?